

WHAT IS CLAIMED IS:

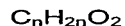
1. A method for production of secondary metabolites in plant cell culture, comprising the step of culturing plant cells by treating a culture medium with alkanoic acid or salt thereof represented as general formula (1) as follows,
5 wherein the alkanoic acid or salt thereof increases the productivity of secondary metabolites of plant cells.
- (general formula 1)
- $$\text{C}_n\text{H}_{2n}\text{O}_2$$
- Wherein, n is integer from 1 to 9.
- 10 2. The method according to claim 1, wherein the plant cells are originated from the *Taxus* genus or *Eriobotrya japonica*.
3. The method according to claim 2, wherein the *Taxus* genus is selected from the group consisting of *Taxus bacata*, *Taxus brevifolia*, *Taxus canadensis*, *Taxus chinensis*, *Taxus cuspidata*, *Taxus floridana*, *Taxus globosa*, *Taxus*
15 *media*, *Taxus wallichiana* and *Taxus yunnanensis*.
4. The method according to claim 1, wherein the secondary metabolite is paclitaxel, a taxane compound or corosolic acid.
5. The method according to claim 1, wherein the alkanoic acid is propionic acid or butyric acid.
- 20 6. The method according to claim 1, wherein the salt of alkanoic acid is alkaline metal salt of alkanoic acid.
7. The method according to claim 1, wherein the culture medium is treated with alkanoic acid or salt thereof at a concentration of between 0.1 mM to 20 mM.

8. The method according to claim 1, wherein the culture medium is treated with alkanoic acid or salt thereof during the period between day 0 and day 21 of culture.

9. The method according to claim 1, wherein the alkanoic acid or salt thereof is repeatedly treated one to five times.

10. A medium for producing secondary metabolites in plant cell culture comprising plant cell culture medium and 0.1 mM to 20 mM of alkanoic acid or salt thereof represented as general formula (1) as follows:

(general formula 1)



Wherein, n is integer from 1 to 9.

11. The medium according to claim 10, wherein the plant is selected from the group consisting of *Taxus bacata*, *Taxus brevifolia*, *Taxus canadensis*, *Taxus chinensis*, *Taxus cuspidata*, *Taxus floridana*, *Taxus globosa*, *Taxus media*, *Taxus wallichiana*, *Taxus yunnanensis* and *Eriobotrya japonica*.

12. The medium according to claim 10, wherein the secondary metabolite is paclitaxel, a taxane compound or corosolic acid.